

State of Minnesota Braille Math Implementation Statement

The Braille Authority of North America (BANA) provided [guidance for the transition from English Braille American Edition \(EBAE\) to Unified English Braille \(UEB\) in their November 9, 2014 Implementation of Unified English Braille](#) statement. National discussions regarding individual states' use of Unified English Braille (UEB) Math prompted the formation of a braille math workgroup in 2015 to discuss the future of braille mathematics in K-12 school settings in Minnesota. Since that time, other guidelines and resources have been created:

- [BANA's Guidance for Transcription Using the Nemeth Code within UEB Contexts](#) in 2014, updated in 2018.
- [BANA's Provisional Guidance on Transcribing Mathematics in UEB](#) in May 2019.
- [National Center on Educational Outcomes \(NCEO\) published Considerations for States Providing Materials in Braille](#) in October 2019.

It is the Minnesota braille math workgroup's opinion that we maintain the use and production of the Nemeth Braille Code within the context of UEB [as stated in our original July 2015 guidance](#) until National Certification in UEB Technical and training is available, as well as more research and data regarding the effectiveness of UEB Math in high level contexts is collected and considered.

The Minnesota workgroup recommends that instruction in subjects that require Science, Technology, Engineering and Math (STEM) for all grades, be provided in Nemeth Braille Code within the context of UEB. Instruction in UEB Technical will be provided in lieu of Nemeth Code [if the student's Individualized Education Program \(IEP\) indicates that UEB Technical for STEM instruction is a more appropriate code](#) to meet the individual needs of the student. In order to make informed decisions, the IEP Team members should be provided with detailed descriptions of both codes and consider the following:

- Previous math instruction and current familiarity with math concepts.
- Cognitive ability.
- Interests and aptitude.
- Braille skills.

Members of the braille math workgroup updated and created the following resources to assist with IEP Team decision making: [Nemeth or Unified English Braille \(UEB\): Factors and Considerations for Math Code](#) and [Braille Code Considerations Discussion Guide](#).

The stakeholders of the braille math workgroup included Minnesota teachers of the blind and visually impaired (TBVI), members of the Minnesota American Printing House (APH) Community of Practice, State Services for the Blind (SSB), Volunteer Braille Services (VBS), BANA committee members, consumer groups, concerned citizens, and a representative of the Minnesota Department of Education.

Questions can be directed to [Kristin Oien](#), state specialist for the blind/visually impaired at the Minnesota Department of Education.

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